

Notice of Allowability

Application No.

10/801,073

Examiner

Phuong Huynh

Applicant(s)

ERYUREK ET AL.

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed on January 29, 2007.
2. ☒ The allowed claim(s) is/are 1-4, 6-44, 46-52 and 54-82.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 10/26/2006
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Terminal Disclaimer

1. The terminal disclaimer filed on October 26, 2006 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US Patent No. 6,654,697 (Application 09/852,102) has been reviewed and is accepted. The terminal disclaimer has been recorded.

Allowable Subject Matter

2. Claims 1-4, 6-44, 46-52 and 54-82 are allowed.

The following is an examiner's statement of reasons for allowance:

Lowe et al. (hereinafter "Lowe") (US Patent No. 5,680,109) discloses an impulse line blockage detector system. Specifically, Lowe discloses that a differential pressure sensor is attached to a process via a high and a low pressure impulse line and also an absolute pressure is attached to each impulse line. Further, Lowe discloses that to determine if an impulse line is blocked, a noise signal is acquired from the corresponding absolute pressure. A variance of the noise signal is determined and compared to a threshold and if the variance is less than the threshold, an impulse line blockage is indicated [see Lowe: Abstract, col. 2, line 58-col. 3, line 3; col. 4, lines 1-10 and lines 28-43].

Regarding claim 1, the prior art of record fails to disclose the following claim limitations:

"a second algorithm receiving the difference and calculating a trained data set of historical data during a training mode and calculating a current data set during a monitoring mode and generating

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diagnostic data as a function of the current data set relative to the historical data, the diagnostic data indicative of a condition of a primary element."

Claims 2-4 and 6-18 depend from allowed claim 1 and therefore are also allowed.

Regarding claim 19, the prior art of record fails to disclose the following claim limitations:

"a calculate circuit receiving the difference output, configured to calculate a trained monitor output of current data obtained during monitoring and a diagnostic circuit configured to receive the trained output and the monitor output and generate a diagnostic output indicating a current condition of a primary element."

Claims 20-32 depend from allowed claim 19 and therefore are also allowed.

Regarding claim 33, the prior art of record fails to disclose the following claim limitations:

"a calculate circuit configured to receive the difference output and calculate a trained output of historical data obtained during monitoring; and a diagnostic circuit configured to receive the trained output and monitor output and to generate a diagnostic output indicative of a condition of a primary element of the transmitter."

Claims 34-40 depend from allowed claim 33 and therefore are also allowed.

Regarding claims 41 and 56, the prior art of record fails to disclose the following claim limitations:

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"acquiring and storing a current data set of the calculated difference during a monitoring mode of the pressure transmitter; and comparing the current data set to the historical data set to diagnose the condition of a primary element of the pressure transmitter."

Claims 42-44, and 46-55 depend from allowed claim 41 and therefore are also allowed.

Regarding claim 57, the prior art of record fails to disclose the following claim limitations:

"calculating means for receiving the difference output for calculating a trained output of historical data obtained during training and for calculating a monitor output of current data obtained during monitoring; and diagnostic means for receiving the trained output and the monitor output, generating a diagnostic output and diagnosing a current condition of a primary of the pressure transmitter."

Regarding claim 58, the prior art of record fails to disclose the following claim limitations:

"diagnostic circuitry configured to compare the stored baseline statistical parameter of the pressure sensor output to a current statistical parameter and responsively provide a diagnostic output based upon the comparison, the diagnostic output indicative of a condition of a primary element of the pressure transmitter."

Claims 59-71 depend from claim allowed 58 and therefore are also allowed.

Regarding claim 72, the prior art of record fails to disclose the following claim limitations:

"comparing the baseline statistical parameter of the current statistical parameter; and providing a diagnostic output based upon the step comparing, the diagnostic output indicative of a condition of a primary element of the pressure transmitter."

Claims 73-82 depend from allowed claim 72 and therefore are also allowed.

Response to Amendment

3. In view of the amendment filed on January 29, 2007, the Examiner withdraws the restriction requirement the previous Office Action mailed on August 09, 2006.

Conclusion

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong Huynh whose telephone number is 571-272-2718. The examiner can normally be reached on M-F: 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on 571-272-2216. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Phuong Huynh
Examiner
Art Unit 2857

PH
March 26, 2007


CAROL S.W. TSAI
PRIMARY EXAMINER